

Patent Claims

Method for Producing a Molded piece

1. Method for producing a molded piece (24, 124), in particular dental objects, such as caps and bridgework, whereby the molded piece is brought out from a molding blank (26, 126) by shape cutting, and the shape cutting is concluded by cutting through a connection (32, 132) between the molded piece and the remaining molding blank,
characterized in
that the molded piece is brought out from the molding blank (26, 126) in such a way that, upon completion of the exterior and interior contours (28, 30, 128, 130) of the molded piece, which remains connected with the molding blank via a connection in the form of a revolving base (32) or a membranous connection exhibiting a through hole and that, subsequently, the connection (132) is split.
2. Procedure according to Claim 1,
characterized in
that the rotating base (32) is split by circular (rotating) milling.
3. Procedure according to Claim 1,
characterized in
that the membranous connection (132) is destroyed via manual pressure exposure on the casting (124).

From WO-A-199947065, a procedure is known for the manufacture of quality artificial dentures from pressed, fine ceramics powder on at least a pre-prepared stump of the tooth, whereby, with consideration of the shrinkage, the interior surface of a purely ceramic basic structure is calculated from biologically compatible material, as the geometric measurements in the mouth of the patient are scanned and digitized, the data increase linearly in all directions around a enlargement factor, compensating exactly the sinter shrinkage, and, so that, a basic structure with an interior and exterior surface is brought out by removing material from a blank mold.

A corresponding manufacturing process contains a stimulus of the casting to be machine cut and, therefore, milled and sharpened mostly on its outer sides, whereby, with the dental objects, a buccal or lingual stimulus seldom occurs approximal. During the working, the casting is maintained by the stimulus in order to be roughly separated and manually worked, that the wall thickness in the ranges concerned exhibit something of the remaining casting, thus with a dental object exhibiting a cap or bridgework. Concerning soft materials, the reworking is connected with a substantial risk of destruction, whereas, with hard materials, a higher time and tool expenditure is needed. Moreover, there is the risk that the wall thickness falls below its recommended limit during the rework.

According to WO-A-200245614, a dental bridge, for example, is manufactured from a ceramic mold by means of a milling tool, which is connected with the remainder of the mold by a retaining bridge.

With a procedure for the manufacture of a technical dental object, such a crown, a mold is always fixed area-wise in an embedding mass, in order to machine cut from the area not covered by the embedding mass (DE-A-199 30 564).